THERAPEUTIC DELIVERY COMPOSITIONS AND METHODS OF USE THEREOF

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Abstract of the Invention

The present invention relates to compositions and methods for treating infectious diseases and genetic disorders through gene therapy and intracellular delivery of antisense oligonucleotides or other nucleic acid sequences.

The present invention comprises a therapeutic delivery composition effective for treating a disease state comprising an administerable admixture of an effective amount of a therapeutic compound capable of altering nucleic acid sequence function and an effective amount of a surface active nonionic block copolymer having the following general formula:

$$HO(C_{2}H_{4}O)_{b}(C_{3}H_{6}O)_{a}(C_{2}H_{4}O)_{b}H$$

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wherein a is an integer such that the hydrophobe represented by (C3H60) has a molecular weight of approximately 750 and approximately 15,000, preferably between approximately 2250 and approximately 15,000, more preferably between approximately 3250 and approximately 15,000, and b is an integer such that the hydrophile portion represented by (C₂H₄0) constitutes approximately 1% to approximately 50% by weight of the compound, preferably approximately 5% to approximately 25%.